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EXAMINER

HARVEY, JAMES R

ART UNIT	PAPER NUMBER
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2833

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/820,838	Applicant(s) MRAKOVICH ET AL.	
	Examiner James R. Harvey	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-18 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-18 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Cancellation of Claim

- The cancellation of claims 14, 19 and 20 is made of record.

Claim Objections

- Claim(s) 8 is/are objected to because of the following informalities:
 - In reference to Claim(s) 8, line 6; the recitation “a second direction generally parallel to the first direction” is confusing because claim 6, line 4 appears to be claiming the same subject, but claims the second direction *perpendicular* to the first direction. For purposes of examination, it is assumed that the language is intended to mean “the second direction generally parallel to the first direction”. An examination based on the merits, as best understood, is addressed below.
 - Appropriate response to the above is required.

Claim Rejections - 35 USC § 102

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2833

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**** Claim(s) 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Radliff (6325671).**

-- In reference to Claim(s) 1, Radliff shows (cover sheet) a clam-shell housing 2 including a first portion 6 attached to a second portion 4 via a sliding hinge 170 (column 4, line 63 and column 5, line 4), the housing defining a first cable seat and a second cable seat, each seat for receiving an associated cable to be spliced to another associated cable in the other seat,

a first insulation displacement connection (IDC) terminal received in the housing (see examiner's figure), wherein the first IDC terminal includes a first prong aligned with the first cable seat and a second prong aligned with the second cable seat, whereby the first IDC terminal electrically connects a wire of the first associated cable to a wire of the second associated cable.

The structure associated with “ a sliding hinge” is not set forth in the claims and is thus deemed to be so broad that it is met by the applied reference a male member sliding within a female member.

-- In reference to Claim(s) 2, Radliff shows (figure 3) a notch 188 formed in the first portion 6 of the housing opposite the hinge 170 and adjacent one of the cable seats, and an alignment member 184 (column 5, line 1) disposed on the second portion 4, wherein the notch receives the alignment member when the clamshell housing closes.

Art Unit: 2833

-- In reference to Claim(s) 3, Radliff shows the sliding hinge 170 includes a catch 190 (cover sheet) adapted to limit the movement in one direction of the first portion 6 in relation to the second portion 4.

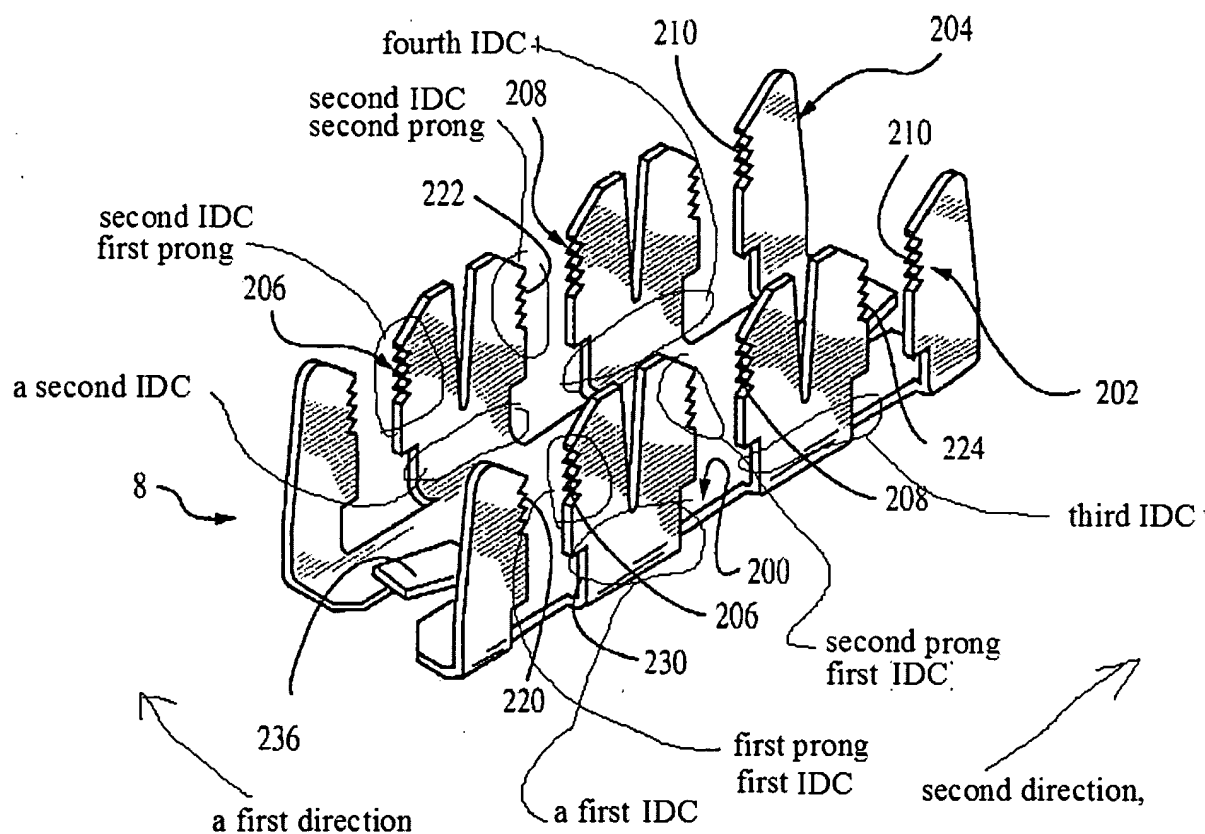
-- In reference to Claim(s) 4, Radliff shows (cover sheet) the sliding hinge 170 is adapted so that the first portion 6 is opened away from and removed from the top of the second portion 4.

In particular reference to the recitation "is adapted such that the first portion 6 is selectively removable from the second portion" is seen to be for the intended use of the claimed structure and is given little patentable weight, since it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim.

-- In reference to Claim(s) 5, Radliff shows (see examiner's figure) a second IDC terminal spaced from the first IDC terminal in a first direction, wherein the second IDC terminal includes a first prong aligned with the first cable seat and a second prong aligned with the second cable seat.

-- In reference to Claim(s) 6, Radliff shows (see examiner's figure) a third IDC terminal spaced from the first IDC terminal in a second direction, which is generally perpendicular to the first direction, and a fourth IDC terminal spaced from the first IDC terminal in a second direction and the third IDC terminal in a direction generally parallel to the first direction.

Art Unit: 2833



-- In reference to Claim(s) 7, Radliff shows a boss 112 (figure 3) extending from the first portion and spanning between the first cable seat and the second cable seat.

** Claim(s) 8-11, 15 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. (4684196) in view of Bazille et al. (3576518).

-- In reference to Claim(s) 8, Smith shows (figure 1)

Art Unit: 2833

a first housing 12 defining first 14 and second (near the lead line of numeral 19a) cable receptacles spaced from one another in a first direction (left to right),

a second housing 11 attached to the first housing 12, and

first 19 and second 20 terminals spaced from one another in a second direction (right to left) generally parallel to the first direction and received in the first housing 12, wherein each terminal includes a first prong (any one of the triangular shaped teeth) aligned with the first cable receptacle and a second prong (another of one of the triangular shaped teeth) aligned with the second cable receptacle.

However, Smith does not show a hinge attaching the first housing to the second housing.

Bazille shows (figure 2) a hinge 25 connecting the first and second housing.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the hinge teachings of Bazille to improve the invention of Smith.

One skilled in the art would have been motivated to use the hinge of Bazille in order to keep the one of the two housings from becoming lost or misplaced during the assembly process and thus rendering the single housing useless.

-- In reference to Claim(s) 9, Smith, as modified by Bazille, shows (figure 2) the first housing 12 includes a resilient clip 23 and the second housing includes a catch 22 that cooperates with the resilient clip.

The meaning of "clip" is not set forth in the claims and is thus deemed to be so broad that it is met by the applied reference showing a flexible member (see attached definition from the Collins English Dictionary) .

In particular reference to the recitation “to selectively attach the first housing to the second housing” is seen to be for the intended use of the claimed structure and is given little patentable weight, since it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, the claim language is not seen to claim any structure that would inhibit the reference from being used for the same purpose as the intended use recitations of the claim because the male and female members can have a friction fit that holds (attaches) the two housings together.

-- In reference to Claim(s) 10, Smith, as modified by Bazille, shows (figure 2) the first housing 12 includes a first opening 27 interposed between the first and second cable receptacles and the second housing 11 includes a second opening 24 that aligns with the first opening to receive a fastener 25 to selectively attach the first housing to the second housing.

-- In reference to Claim(s) 11, Smith shows (figure 1) third 17 and fourth 18 terminals received in the second housing and spaced from one another in a direction generally parallel to the second direction.

-- In reference to Claim(s) 15, Smith shows (figure 1) a boss 26 extending from one of the first housing and the second housing interposed between the cable receptacles.

-- In reference to Claim(s) 23, Smith, as modified by Bazille, shows substantially the invention as claimed. Bazille shows the resilient clip 23 is disposed on an external surface of one of the first and second housings adjacent to one of the cables.

However, the combination of references does not show resilient clip is disposed between the first cable receptacle and the second cable receptacle.

There are many types of clips that are known in the art to be used with idc connectors. Bazille shows a catch arm 23 (figure 1) that latches below a wedge 19 and Smith shows a resilient clip 23 (figure 1) that cooperates with the a catch 22.

With the modification of Bazille, one of the longitudinal side resilient clips 23 of Smith would most likely be replaced with the hinge 25 of Bazille (cover sheet). Since, Smith was originally designed with two clips, it would be reasonable to duplicate the clip 23 of Bazille to include having at least one clip on the longitudinal side opposite of Bazille's hinge 25, and at the least another clip the lateral side of Smith between the cables. This is seen as a duplication of the working parts of the invention of Smith as modified by Bazille from showing a longitudinal side resilient clip to showing both a longitudinal side resilient clip as well as at least one lateral side resilient clip.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the parts of Smith to have the clip on both the longitudinal and lateral sides, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8 .

One skilled in the art would have been motivated to duplicate the resilient clip of Smith as modified by Bazille in order to make the latching mechanism of Smith less likely to separate and result in a failure of the electrical connection or to meet the esthetic preferences of the customer.

Art Unit: 2833

** Claim(s) 8 , 12, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daoud et al. (6152759) in view of Smith.

-- In reference to Claim(s) 8, Daoud shows (cover sheet)

a first housing 12 defining first and second cable receptacles 22 (figure 3) spaced from one another in a first direction (left to right),

a second housing 14 attached to the first housing 12;

a hinge (near the lead line of numeral 32; (cover sheet)) connecting the first and second housing;

a discontinuous hoop-shaped appendage (see examiner's figure) connected to the first housing and defining an elongated slot and a side opening; and.

However, Daoud does not show the first and second terminals have the claimed arrangement of the first and second prongs.

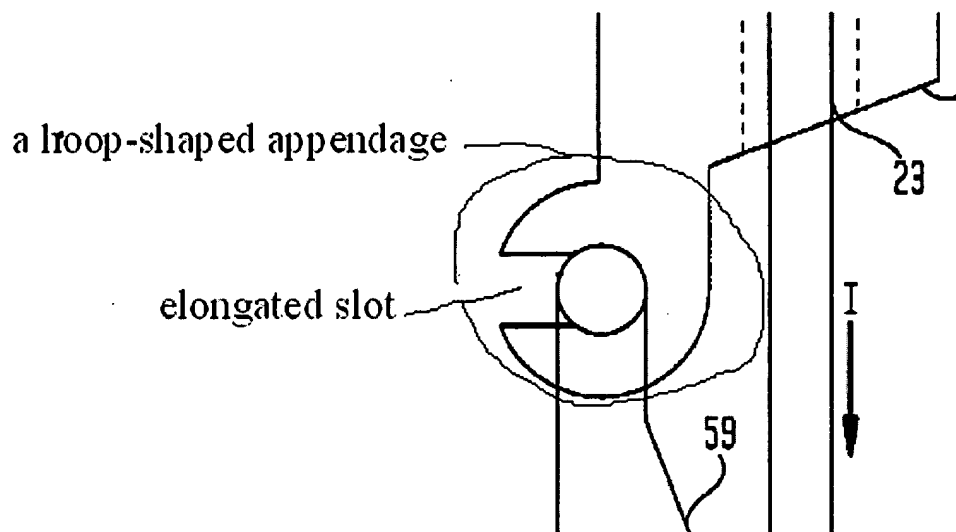
Smith shows first 19 and second 20 terminals spaced from one another in a second direction (right to left) generally parallel to the first direction and received in the first housing 12, wherein each terminal includes a first prong (any one of the triangular shaped teeth) aligned with the first cable receptacle and a second prong (another of one of the triangular shaped teeth) aligned with the second cable receptacle.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve the invention of Daoud with the terminal and multi-prong arrangement of Smith.

One skilled in the art would have been motivated to use the arrangement of Smith in order to allow the invention of Daoud to be able to be marketable in to customers desiring the higher current capacity that is associated with multiple terminals and prongs.

Art Unit: 2833

-- In reference to Claim(s) 12, Daoud shows (figure 1) the first housing includes a hoop-shaped appendage defining an elongated slot and the second housing 11 includes a pin 32 received in the slot 27.



The meaning of "slot" is not set forth in the claims and is thus deemed to be so broad that it is met by the applied reference showing an opening (as discussed in the previous rejection; mailed 5-4-05).

** Claim(s) 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daoud, as modified by Smith, as applied to claim 12 and further in view of Gan (5281164).

-- In reference to Claim(s) 13, Daoud as modified by Smith shows substantially the invention as claimed.

However, while there must be some type of catch on Daoud to hold the pin 32 within the slot, neither Daoud nor Smith explicitly show the first housing includes catches 102 formed on an inner surface of the slot 27.

It is known in the art to use catches to prevent the pin from sliding out of the slot on hinges. Gan is an example within the art that teaches (figure 1) a first housing includes catches 102 formed on an inner surface of the slot. The meaning of “catches” is not set forth in the claims and is thus deemed to be so broad that it is met by the applied reference showing protrusions that catch the pin if it starts to slide out of the slot.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the known catch teachings as exemplified by Gan with the invention of Daoud. One skilled in the art would have been motivated to use catches in order to minimize the possibility of top housing separating from the bottom housing and causing the connection to fail or to avoid the two pieces becoming separated and thus rendering the other piece inoperable.

** Claim(s) 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daoud in view of Smith as applied to claim 21 and further in view of Bazille.

-- In reference to Claim(s) 22 and 23, Daoud as modified by Smith shows a resilient clip (near the lead line of numeral 22, figure 2) extending from the second housing instead of the first housing and a catch at the top surface of the housing and Smith shows (as indicated with claim 9 during the previous rejection) (figure 2) the first housing 12 (figure 2) includes a resilient clip 23 and the second housing includes a catch 22 that cooperates with the resilient clip and (figure 3) of Daoud shows the resilient clip is between the cables.

The meaning of “clip” is not set forth in the claims and is thus deemed to be so broad that it is met by the applied reference showing a flexible member (see attached definition from the Collins English Dictionary) .

There are many types of latching mechanisms known in the art to be used with IDC connectors. The particular configuration of Daoud was discussed above. Bazille shows a catch arm 23 (figure 1) that latches below a wedge 19 and Smith shows a resilient clip 23 (figure 1) that cooperates with the a catch 22.

With the modification of Daoud with Smith, it would be reasonable to increase the single latching mechanism of Daoud with a multiple latching mechanisms to compensate for the additional action and reaction forces associated with multiple terminals and prongs. Both Smith and Bazille teach multiple latching mechanisms located on multiple sides of a rectangular shaped cube.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to learn from the multiple latching mechanism teachings of Bazille and Smith to have the clip on both the longitudinal and lateral sides, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8 .

One skilled in the art would have been motivated to duplicate the latching mechanism of Daoud in order to make the latching mechanism of Daoud less likely to separate and result in a failure of the electrical connection or to meet the esthetic preferences of the customer.

** Claim(s)16 is rejected under 35 U.S.C. 102(b) as being anticipated by Santos (3899236).

-- In reference to Claim(s) 16, Santos shows (cover sheet)
positioning first and second cables (figure 1) in respective first and second seats in a first housing portion 22 of the clam-shell housing,
rotating a second housing portion 50 of the clam-shell housing, which is attached to the

Art Unit: 2833

first housing portion via a sliding hinge (the hinge (near the lead line of numeral 52, figure 4) slides along the wall (near the lead line of numeral 55; figure 5)), in relation to the first housing portion;

linearly moving the second housing portion 50 in relation to the other housing portion 22; and

piercing the insulation material of the first and second cable with an IDC terminal 12 (figures 1 and 5) received in one of the housings to contact a first of the at least two wires in each cable.

** Claim(s) 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santos in view of Smith.

-- In reference to Claim(s) 17 and 18, Santos shows substantially the invention as claimed.

However, Santos's invention does not show the two idc terminals in the upper housing and tow idc terminals in the lower housing that applicant is invention uses in the method claims of claims 17 and 18.

It is known in the art to duplicate idc terminals. Smith is an example in the art that shows (figure 1) two idc terminals in an upper housing and two idc terminals in the lower housing.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the multiple idc teachings of Smith to improve the capabilities of the invention of Santos, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8 .

One skilled in the art would have been motivated to use the arrangement of Smith in order to allow the invention of Daoud to be able to be marketable in to customers desiring the higher current capacity that is associated with multiple terminals and prongs.

Response to applicant's Remarks

-- In response to applicant's assertion (page 6, line 21) that one portion cannot slide with respect to the other portion, does not convince the examiner that the claims are allowed over the art of record. The examiner is not convinced because applicant has not shown what part of the claims the recitation "one portion cannot slide with respect to the other portion" requires such a narrowing of applicant's broad claim; the claim language defines applicant's invention and arguments based upon words or phrases that are not precisely claimed are considered moot; It is

Art Unit: 2833

the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064.

Further, this remark is seen to require that the examination rely on applicant's disclosure to import unclaimed subject matter into the claim. Applicant misinterprets the principle that claims are interpreted in the light of the specification. Although these elements are found as examples or embodiments in the specification, they were not claimed explicitly. Nor were the words that are used in the claims defined in the specification to require these limitations. A reading of the specification provides no evidence to indicate that these limitations must be imported into the claims to impart such a narrow requirement. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ 2d 1064.

However, even though the phrase "one portion cannot slide with respect to the other portion" is not positively recited, Radliff teaches (column 5, lines 4-6) a male portion 176 that is "one portion" on one of the housings slides with respect to female portion 180 that is "the other portion" on the other housing as depicted on figure 2 of Radliff in the same manner that applicant's figure 4 shows male portion 44 slides with respect to female portion 42 and since both portions 176 and 180 are portions on the hinge 170 the showing of Radliff makes applicant's recitation "a clam-shell housing including a first portion attached to a second portion via a sliding hinge," unpatentable.

-- In response to applicant's assertion (page 6, line 28) concerning newly amended claim 8 and those claims dependent thereon, the remark is has been carefully reviewed, but is considered to be moot in view of the new grounds of rejection.

Art Unit: 2833

-- In response to applicant's assertion (page 7, line 3) concerning newly amended claim 12, the remark is has been carefully reviewed, but is considered to be moot in view of the new grounds of rejection.

-- In response to applicant's assertion (page 7, line 7) concerning newly amended claim 16, the remark is has been carefully reviewed, but is considered to be moot in view of the new grounds of rejection.

-- In response to applicant's assertion (page 7, line 13) concerning new claim 21, is not seen to claim all the limitations of the base claim and ^{any} ~~not~~ intervening claims and is seen to be unpatentable as discussed above.

Conclusion

- Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

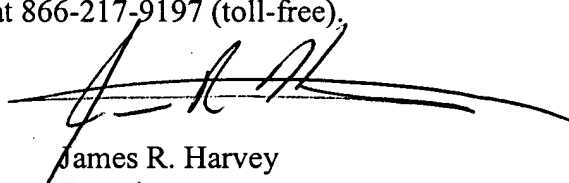
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Harvey whose telephone number is 571-272-2007. The examiner can normally be reached on 8:00 A.M. To 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800 extension 33.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2800.

- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



James R. Harvey
Examiner
jrh
November 2, 2005